# DEGREE CHECKLIST

**BACHELOR OF SCIENCE (BSc) COMPUTER SCIENCE**

Specialized Honours (Software Development Stream)

<table>
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<tr>
<th>STUDENT #</th>
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Students are strongly advised to refer to online Academic Calendars before enrolling into courses: http://calendars.registrar.yorku.ca/

<table>
<thead>
<tr>
<th>COURSES</th>
<th>CREDITS EARNED</th>
<th>GRADE</th>
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## First Year Courses
- **LE/EECS 1001 1.00** Research Directions in Computing
- **LE/EECS 1012 3.00** or **LE/EECS 1015 3.00** Introduction to Computer Science or Introduction to Computer Science and Programming
- **LE/EECS 1019 3.00** Discrete Mathematics for Computer Science
- **LE/EECS 1022 3.00** Programming for Mobile Computing
- **SC/MATH 1025 3.00** Applied Linear Algebra
- **SC/MATH 1300 3.00** Differential Calculus with Applications
- **SC/MATH 1310 3.00** Integral Calculus with Applications

### Foundational science:
- Six credits from SC/BIOL 1000 3.00, SC/BIOL 1001 3.00, SC/CHM 1000 3.00, SC/CHM 1001 3.00, SC/PHY 1011 3.00, SC/PHY 1012 3.00, SC/PHY 1010 6.00, SC/PHY 1411 3.00, SC/PHY 1412 3.00, SC/PHY 1421 3.00, SC/PHY 1422 3.00, SC/PHY 1420 6.00

## Second Year Courses
- **SC/MATH 1090 3.00** Introduction to Logic for Computer Science
- **SC/MATH 2030 3.00** Elementary Probability
- **LE/EECS 2001 3.00** Introduction to the Theory of Computation
- **LE/EECS 2030 3.00** Advanced Object Oriented Programming
- **LE/EECS 2111 3.00** Fundamentals of Data Structures
- **LE/EECS 2021 4.00** Computer Organisation
- **LE/EECS 2031 3.00** Software Tools
- **LE/EECS 2311 3.00** Software Development Project

### General Education and/or Science Breadth
- See sections "A" and "C" on page 2

Notes
### Third Year Courses

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>LE/EECS 3000 3.00 Professional Practice in Computing</td>
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<tr>
<td>LE/EECS 3101 3.00 Design and Analysis of Algorithms</td>
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<tr>
<td>LE/EECS 3311 3.00 Software Design</td>
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<td>LE/EECS 3342 3.00 System Specification and Refinement</td>
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<tr>
<td>LE/EECS 3421 3.00 Introduction to Database Systems</td>
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<tr>
<td>LE/EECS 3461 3.00 User Interfaces</td>
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At least 3 credits from:
LE/EECS 3215 4.00, LE/EECS 3221 3.00

### General Education and/or Science Breadth and/or Electives

See sections “A”, “C”, and “D” below

### Fourth Year Courses

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>LE/EECS 4090 6.00 Interactive Systems Project</td>
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<tr>
<td>LE/EECS 4312 3.00 Software Engineering Requirements</td>
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<tr>
<td>LE/EECS 4313 3.00 Software Engineering Testing</td>
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At least 3 additional credits:
LE/EECS 4101 3.00 or LE/EECS 4111 3.00 or LE/EECS 4153 3.00 for an overall total of at least 65 credits from computer science courses.

### Additional elective credits including

- 12 credits outside of EECS, STATS, MATH, and ITEE
- 6 credits at the 3000-level or higher

For a minimum of 120 total credits

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### Notes

- **A. General Education Requirement:**
  - non-science requirement: 12 credits from the approved list of courses and subject areas in your Academic Calendar;
  - mathematics: satisfied within the core requirements;
  - computer science: satisfied by the major requirements;
  - science: satisfied by the BIOL, CHEM, or PHYS labs as stated on your degree checklist.

- **B. Major Requirements:**
  - As stated on your degree checklist.

- **C. Science Breadth:**
  - In addition to the courses specified in the checklist, 3 credits at any level are required in approved non-EECS science disciplines (SC/**** + HH/PSYC + HH/KINE)

- **D. Upper Level Requirement:**
  - In addition to the upper year courses specified in the checklist, 6 credits at the 3000-level or higher are required.

- **E. Additional elective credits, as required, for an overall total of 120 credits.**

### TOTAL CGPA (minimum cumulative GPA of 5.00 (C+) required to graduate with an Honours BSc degree)

**EECS GPA Prerequisite:**
Most 2000-, 3000-, and 4000-level EECS courses require the following general (that is, common) prerequisites, in addition to other course-specific prerequisites: a cumulative grade point average of 4.50 or better over all completed major EECS courses. Note: “Major” courses are all EECS courses with second digit other than 5 and include LE/EECS 1028 3.00 (cross-listed to SC/MATH 1028 3.00) and LE/EECS 1019 3.00 (cross-listed to SC/MATH 1019 3.00).

Participation in the Co-op or internship option is highly recommended for students, but is not a degree requirement.

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**BSc Specialized Honours (Software Development Stream), Computer Science**